

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for preparing an ester F of a polyalcohol A with at least one α, β -ethylenically unsaturated carboxylic acid B, comprising the steps of

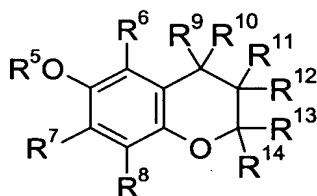
a) reacting a polyalcohol A with at least one α, β -ethylenically unsaturated carboxylic acid B in the presence of at least one esterification catalyst C and at least one polymerization inhibitor D, and ~~also, if appropriate,~~ a solvent E which forms an azeotrope with water, to form an ester F,

b) ~~if appropriate,~~ removing at least a portion of the water formed in a) from the reaction mixture, b) ~~being effected during and/or after a)~~ or after step a),

f) ~~if appropriate,~~ neutralizing the reaction mixture,

h) ~~if a solvent E has been used,~~ removing the solvent ~~if appropriate~~ by distillation, and/or

i) stripping with a gas inert under the reaction conditions or both steps h) and i), which comprises using, as the polymerization inhibitor D, at least one 6-chromanol derivative of the formula (III)



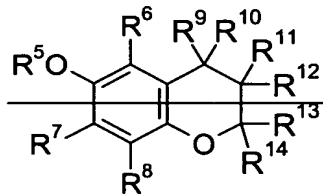
where

R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², R¹³ and R¹⁴ are each independently hydrogen, C₁-C₄-alkyl, and

R⁵ is additionally C₁-C₄-alkylcarbonyl, C₁-C₄-alkyloxycarbonyl, C₆-C₁₂-arylcarbonyl or C₆-C₁₂-aryloxycarbonyl,
and R¹³ is additionally chlorine.

Claim 2 (Currently Amended): A process for preparing a crosslinked hydrogel, comprising the steps of

- q) reacting a polyalcohol A with at least one α , β -ethylenically unsaturated carboxylic acid B in the presence of at least one esterification catalyst C and at least one polymerization inhibitor D, and ~~also, if appropriate,~~ a solvent E which forms an azeotrope with water, to form an ester F,
 - b) ~~if appropriate,~~ removing at least a portion of the water formed in a) from the reaction mixture, b) ~~being effected during and/or after a)~~ or after step a),
 - f) ~~if appropriate,~~ neutralizing the reaction mixture,
 - h) ~~if a solvent E has been used,~~ removing the solvent ~~if appropriate~~ by distillation, and/or
 - i) stripping with a gas inert under the reaction conditions or both steps h) and i),
 - k) polymerizing the reaction mixture from one of stages a) to i), ~~if passed through,~~ with, ~~if appropriate,~~ additional monoethylenically unsaturated compounds N, and also, ~~if appropriate,~~ at least one further copolymerizable hydrophilic monomer M in the presence of at least one free-radical initiator K and, ~~if appropriate,~~ at least one graft base L,
 - l) ~~if appropriate,~~ postcrosslinking the reaction mixture obtained from k),
 - m) drying the reaction mixture obtained from k) or l) and
 - n) ~~if appropriate,~~ grinding and/or sieving the reaction mixture obtained from k), l) or m) or grinding or sieving said reaction mixture,
- which comprises using, as the polymerization inhibitor D, at least one 6-chromanol derivative of the formula (III) .



~~as defined in claim 1.~~

Claim 3 (Currently Amended): The process according to claim 1 ~~or 2~~, wherein R⁵ and R⁹ to R¹² in formula (III) are each hydrogen, R⁶, R⁷ and R⁸ are each independently hydrogen or methyl, and R¹³ and R¹⁴ are each methyl.

Claim 4 (Currently Amended): The process according to claim 1 ~~or 2~~, wherein at least one 6-chromanone derivative is selected from the group consisting of 2,2,5,7,8-pentamethyl-6-chromanone, 2,2,5,7-tetramethyl-6-chromanone, 2,2,5,8-tetramethyl-6-chromanone, 2,2,7,8-tetramethyl-6-chromanone, 2,2,5-trimethyl-6-chromanone, 2,2,7-trimethyl-6-chromanone and 2,2,8-trimethyl-6-chromanone.

Claim 5 (Currently Amended): The process according to ~~any of the preceding claims~~ claim 1, wherein at least one of reaction steps a) and b) is carried out in the presence of an oxygenous gas.

Claim 6 (Currently Amended): The process according to ~~any of the preceding claims~~ claim 1, wherein the polyalcohol A is selected from the group consisting of trimethylolbutane, trimethylolpropane, trimethylolethane, neopentyl glycol, neopentyl hydroxypivalate, pentaerythritol, glycerol, 1,2-ethylene glycol, 1,2-propylene glycol, 2-ethyl-1,3-propanediol, 2-methyl-1,3-propanediol, hydroquinone, bisphenol A, bisphenol F,

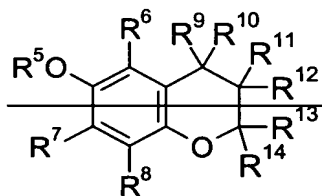
bisphenol B, 2,2-bis(4-hydroxycyclohexyl)propane, 1,1-, 1,2-, 1,3- and 1,4-cyclohexane-dimethanol, 1,2-, 1,3- or 1,4-cyclohexanediol, but-2-ene-1,4-diol and but-2-yne-1,4-diol, each of which may optionally be alkoxylated.

Claim 7 (Currently Amended): The process according to ~~any of the preceding claims~~ claim 1, wherein, ~~instead of a carboxylic acid B,~~ a C₁-C₄-alkyl ester of a carboxylic acid B is used and, ~~instead of an esterification catalyst C,~~ a transesterification catalyst.

Claim 8 (Currently Amended): A crosslinked hydrogel ~~obtainable~~ prepared by the process according to ~~any of claims 2 to 6~~ claim 2.

Claim 9 (Currently Amended): A crosslinked hydrogel comprising at least one hydrophilic monomer M in copolymerized form, crosslinked with a reaction mixture comprising an ester F, ~~as obtainable~~ prepared by the process according to ~~any of claims 1 to 6~~ claim 1.

Claim 10 (Currently Amended): The crosslinked hydrogel according to claim 8 ~~or 9~~, comprising at least one 6-chromanol derivative of the formula (III).



~~as defined in claim 1.~~

Claim 11 (Currently Amended): ~~The use of~~ A method of using the crosslinked hydrogel according to ~~any of claims 8 to 10~~ claim 8 in hygiene articles, packaging materials

and in nonwovens.

Claim 12 (Currently Amended): ~~The use of~~ A method of using the reaction mixtures from the preparation of a (meth)acrylic ester of a polyalcohol or of a purified (meth)acrylic ester according to ~~any of claims 1 to 6~~ claim 1, each of which comprise at least one 6-chromanol derivative of the formula (III) as defined in claim 1, as free-radical crosslinkers of water-absorbent hydrogels.

Claim 13 (Currently Amended): ~~The use of~~ A method of using the 6-chromanol derivatives of the formula (III) as defined in claim 1 as the stabilizer in the preparation of (meth)acrylic esters.

Claim 14 (Currently Amended): The ~~use~~ method according to claim 12, wherein the (meth)acrylic esters are used as free-radical crosslinkers in hydrogels.

Claim 15 (Original): A substance mixture comprising
at least one 6-chromanol derivative of the formula (III) as defined in claim 1 and
at least one stabilizer selected from the group consisting of phenothiazine,
hydroquinone, hydroquinone monomethyl ether and hypophosphorous acid.